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      Becha, Shanya D.; BULLOCH, Sean A.;
      CHANG, Hsin-Ru; CHAWLA, Narinder K.;
      ELLIOTT, Vicki S.; EMERLING, Brooke M.;
GIETZEN, Kimberly J.; HAFALIA, April J.A.;
JACKSON, Alan A.; KABLE, Amy E.;
      KHARE, Reena; LEE, Soo Yeun;
      MARQUIS, Joseph P.; MURAGE, Jaji;
      SWARNAKAR, Anita; YANG, Yonghong G.
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Cys Arg Ala Leu Val Asp Glu Leu Glu Trp Glu Ile Ala Gln Val
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Asp Pro Lys Lys Thr Ile Gln Met Gly Ser Phe Arg Ile Asn Pro
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Asp Gly Ser Gln Ser Val Val Glu Cys Glu Ser Ile Val Glu Glu
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Tyr Glu Asp Glu Leu Ile Glu Phe Phe Ser Arg Glu Ala Asp Asn
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Met Pro Ser Pro Thr Phe Leu Thr Gln Val Lys Glu Ser Leu Ser
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Ser Tyr Trp Glu Ser Ala Lys Thr Ala Ala Gln Asn Leu Asp Leu
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Gly His Val Gly Ala Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro
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Leu Pro Tyr Cys Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln
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Ala Met Ile Pro Lys Gly Ala Leu Ala Val Ala Val Ala Gln Val
                 95
                                     100
Cys Arg Val Val Pro Leu Val Ala Gly Gly Ile Cys Gln Cys Leu
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                                     115
Ala Glu Arg Tyr Ser Val Ile Leu Leu Asp Thr Leu Leu Gly Arg
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Met Leu Pro Gln Leu Val Cys Arg Leu Val Leu Arg Cys Ser Met
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                                     145
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Asp Asp Ser Ala Gly Pro Arg Glu Trp Leu Pro Arg Asp Ser Glu
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Cys His Leu Cys Met Ser Val Thr Thr Gln Ala Gly Asn Ser Ser
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Glu Gln Ala Ile Pro Gln Ala Met Leu Gln Ala Cys Val Gly Ser
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Trp Leu Asp Arg Glu Lys Cys Lys Gln Phe Val Glu Gln His Thr
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Pro Gin Leu Leu Thr Leu Val Pro Arg Gly Trp Asp Ala His Thr
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Pro Glu Arg Lys Thr Phe Gln Val Lys Leu Glu Thr Arg Gln Ile
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Thr Trp Ser Arg Gly Ala Asp Lys Ile Glu Gly Ala Ile Asp Ile
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Arg Glu Ile Lys Glu Ile Arg Pro Gly Lys Thr Ser Arg Asp Phe
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Asp Arg Tyr Gln Glu Asp Pro Ala Phe Arg Pro Asp Gln Ser His
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                                     100
Cys Phe Val Ile Leu Tyr Gly Met Glu Phe Arg Leu Lys Thr Leu
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                                     115
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Ser Leu Gln Ala Thr Ser Glu Asp Glu Val Asn Met Trp Ile Lys
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Gly Leu Thr Trp Leu Met Glu Asp Thr Leu Gln Ala Pro Thr Pro
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Leu Gln Ile Glu Arg Trp Leu Arg Lys Gln Phe Tyr Ser Val Asp
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Arg Asn Arg Glu Asp Arg Ile Ser Ala Lys Asp Leu Lys Asn Met
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Leu Ser Gln Val Asn Tyr Arg Val Pro Asn Met Arg Phe Leu Arg
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Glu Arg Leu Thr Asp Leu Glu Gln Arg Ser Gly Asp Ile Thr Tyr
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Gly Gln Phe Ala Gln Leu Tyr Arg Ser Leu Met Tyr Ser Ala Gln
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Lys Thr Met Asp Leu Pro Phe Leu Glu Ala Ser Thr Leu Arg Ala
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Gly Glu Arg Pro Glu Leu Cys Arg Val Ser Leu Pro Glu Phe Gln
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Gln Phe Leu Leu Asp Tyr Gln Gly Glu Leu Trp Ala Val Asp Arg
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Leu Gln Val Gln Glu Phe Met Leu Ser Phe Leu Arg Asp Pro Leu
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                                     280
Arg Glu Ile Glu Glu Pro Tyr Phe Phe Leu Asp Glu Phe Val Thr
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                                     295
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Phe Leu Phe Ser Lys Glu Asn Ser Val Trp Asn Ser Gln Leu Asp
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                                     310
Ala Val Cys Pro Asp Thr Met Asn Asn Pro Leu Ser His Tyr Trp
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Ile Ser Ser Ser His Asn Thr Tyr Leu Thr Gly Asp Gln Phe Ser
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Ser Glu Ser Ser Leu Glu Ala Tyr Ala Arg Cys Leu Arg Met Gly
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                350
Cys Arg Cys Ile Glu Leu Asp Cys Trp Asp Gly Pro Asp Gly Met
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                                     370
                365
Pro Val Ile Tyr His Gly His Thr Leu Thr Thr Lys Ile Lys Phe
                                     385
                380
Ser Asp Val Leu His Thr Ile Lys Glu His Ala Phe Val Ala Ser
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                                     400
Glu Tyr Pro Val Ile Leu Ser Ile Glu Asp His Cys Ser Ile Ala
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                410
Gln Gln Arg Asn Met Ala Gln Tyr Phe Lys Lys Val Leu Gly Asp
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                425
Thr Leu Leu Thr Lys Pro Val Glu Ile Ser Ala Asp Gly Leu Pro
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                440
Ser Pro Asn Gln Leu Lys Arg Lys Ile Leu Ile Lys His Lys Lys
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Leu Ala Glu Gly Ser Ala Tyr Glu Glu Val Pro Thr Ser Met Met
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                 470
Tyr Ser Glu Asn Asp Ile Ser Asn Ser Ile Lys Asn Gly Ile Leu
                                     490
                485
Tyr Leu Glu Asp Pro Val Asn His Glu Trp Tyr Pro His Tyr Phe
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Val Leu Thr Ser Ser Lys Ile Tyr Tyr Ser Glu Glu Thr Ser Ser
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Asp Gln Gly Asn Glu Asp Glu Glu Glu Pro Lys Glu Val Ser Ser
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Ser Thr Glu Leu His Ser Asn Glu Lys Trp Phe His Gly Lys Leu
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Gly Ala Gly Arg Asp Gly Arg His Ile Ala Glu Arg Leu Leu Thr
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                                     565
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Glu Tyr Cys Ile Glu Thr Gly Ala Pro Asp Gly Ser Phe Leu Val
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Arg Glu Ser Glu Thr Phe Val Gly Asp Tyr Thr Leu Ser Phe Trp
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Arg Asn Gly Lys Val Gln His Cys Arg Ile His Ser Arg Gln Asp
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Ala Gly Thr Pro Lys Phe Phe Leu Thr Asp Asn Leu Val Phe Asp
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                                      625
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Ser Leu Tyr Asp Leu Ile Thr His Tyr Gln Gln Val Pro Leu Arg
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                 635
Cys Asn Glu Phe Glu Met Arg Leu Ser Glu Pro Val Pro Gln Thr
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Asn Ala His Glu Ser Lys Glu Trp Tyr His Ala Ser Leu Thr Arg
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Ala Gln Ala Glu His Met Leu Met Arg Val Pro Arg Asp Gly Ala
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 Phe Leu Val Arg Lys Arg Asn Glu Pro Asn Ser Tyr Ala Ile Ser
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 Phe Arg Ala Glu Gly Lys Ile Lys His Cys Arg Val Gln Glu
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                 710
 Gly Gln Thr Val Met Leu Gly Asn Ser Glu Phe Asp Ser Leu Val
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 Asp Leu Ile Ser Tyr Tyr Glu Lys His Pro Leu Tyr Arg Lys Met
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 Lys Leu Arg Tyr Pro Ile Asn Glu Glu Ala Leu Glu Lys Ile Gly
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                 755
 Thr Ala Glu Pro Asp Tyr Gly Ala Leu Tyr Glu Gly Arg Asn Pro
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 Gly Phe Tyr Val Glu Ala Asn Pro Met Pro Thr Phe Lys Cys Ala
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                                      790
                 785
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Thr Phe Ile Lys Ser Ala Ile Ile Gln Asn Val Glu Lys Gln Glu
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Gly Gly Trp Trp Arg Gly Asp Tyr Gly Gly Lys Lys Gln Leu Trp
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                830
                                     835
Phe Pro Ser Asn Tyr Val Glu Glu Met Val Asn Pro Val Ala Leu
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                                     850
Glu Pro Glu Arg Glu His Leu Asp Glu Asn Ser Pro Leu Gly Asp
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                                     865
                                                          870
Leu Leu Arg Gly Val Leu Asp Val Pro Ala Cys Gln Ile Ala Trp
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Pro Glu Arg Lys Thr Phe Gln Val Lys Leu Glu Thr Arg Gln Ile
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Thr Trp Ser Arg Gly Ala Asp Lys Ile Glu Gly Ala Ile Asp Ile
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Ser Leu Gln Ala Thr Ser Glu Asp Glu Val Asn Met Trp Ile Lys
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Gly Leu Thr Trp Leu Met Glu Asp Thr Leu Gln Ala Pro Thr Pro
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Leu Gln Ile Glu Arg Trp Leu Arg Lys Gln Phe Tyr Ser Val Asp
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Arg Asn Arg Glu Asp Arg Ile Ser Ala Lys Asp Leu Lys Asn Met
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Leu Ser Gln Val Asn Tyr Arg Val Pro Asn Met Arg Phe Leu Arg
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                                                          195
                 185
Glu Arg Leu Thr Asp Leu Glu Gln Arg Ser Gly Asp Ile Thr Tyr
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                                                           210
                 200
Gly Gln Phe Ala Gln Leu Tyr Arg Ser Leu Met Tyr Ser Ala Gln
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                                      220
                                                           225
Lys Thr Met Asp Leu Pro Phe Leu Glu Ala Ser Thr Leu Arg Ala
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                 230
 Gly Glu Arg Pro Glu Leu Cys Arg Val Ser Leu Pro Glu Phe Gln
                 245
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 Gln Phe Leu Leu Asp Tyr Gln Gly Glu Leu Trp Ala Val Asp Arg
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Leu Gln Val Gln Glu Phe Met Leu Ser Phe Leu Arg Asp Pro Leu Arg Glu Ile Glu Glu Pro Tyr Phe Phe Leu Asp Glu Phe Val Thr Phe Leu Phe Ser Lys Glu Asn Ser Val Trp Asn Ser Gln Leu Asp Ala Val Cys Pro Asp Thr Met Asn Asn Pro Leu Ser His Tyr Trp Ile Ser Ser Ser His Asn Thr Tyr Leu Thr Gly Asp Gln Phe Ser Ser Glu Ser Ser Leu Glu Ala Tyr Ala Arg Cys Leu Arg Met Gly Cys Arg Cys Ile Glu Leu Asp Cys Trp Asp Gly Pro Asp Gly Met Pro Val Ile Tyr His Gly His Thr Leu Thr Thr Lys Ile Lys Phe Ser Asp Val Leu His Thr Ile Lys Glu His Ala Phe Val Ala Ser Glu Tyr Pro Val Ile Leu Ser Ile Glu Asp His Cys Ser Ile Ala Gln Gln Arg Asn Met Ala Gln Tyr Phe Lys Lys Val Leu Gly Asp Thr Leu Leu Thr Lys Pro Val Glu Ile Ser Ala Asp Gly Leu Pro Ser Pro Asn Gln Leu Lys Arg Lys Ile Leu Ile Lys His Lys Lys Leu Ala Glu Gly Ser Ala Tyr Glu Glu Val Pro Thr Ser Met Met Tyr Ser Glu Asn Asp Ile Ser Asn Ser Ile Lys Asn Gly Ile Leu Tyr Leu Glu Asp Pro Val Asn His Glu Trp Tyr Pro His Tyr Phe Val Leu Thr Ser Ser Lys Ile Tyr Tyr Ser Glu Glu Thr Ser Ser Asp Gln Gly Asn Glu Asp Glu Glu Glu Pro Lys Glu Val Ser Ser Ser Thr Glu Leu His Ser Asn Glu Lys Trp Phe His Gly Lys Leu Gly Ala Gly Arg Asp Gly Arg His Ile Ala Glu Arg Leu Leu Thr Glu Tyr Cys Ile Glu Thr Gly Ala Pro Asp Gly Ser Phe Leu Val Arg Glu Ser Glu Thr Phe Val Gly Asp Tyr Thr Leu Ser Phe Trp Arg Asn Gly Lys Val Gln His Cys Arg Ile His Ser Arg Gln Asp Ala Gly Thr Pro Lys Phe Phe Leu Thr Asp Asn Leu Val Phe Asp Ser Leu Tyr Asp Leu Ile Thr His Tyr Gln Gln Val Pro Leu Arg Cys Asn Glu Phe Glu Met Arg Leu Ser Glu Pro Val Pro Gln Thr Asn Ala His Glu Ser Lys Glu Trp Tyr His Ala Ser Leu Thr Arg Ala Gln Ala Glu His Met Leu Met Arg Val Pro Arg Asp Gly Ala Phe Leu Val Arg Lys Arg Asn Glu Pro Asn Ser Tyr Ala Ile Ser Phe Arg Ala Glu Gly Lys Ile Lys His Cys Arg Val Gln Glu Gly Gln Thr Val Met Leu Gly Asn Ser Glu Phe Asp Ser Leu Val Asp Leu Ile Ser Tyr Tyr Glu Lys His Pro Leu Tyr Arg Lys Met

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Lys Leu Arg Tyr Pro Ile Asn Glu Glu Ala Leu Glu Lys Ile Gly
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Thr Ala Glu Pro Asp Tyr Gly Ala Leu Tyr Glu Gly Arg Asn Pro
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Gly Phe Tyr Val Glu Ala Asn Pro Met Pro Thr Phe Lys Cys Ala
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Val Lys Ala Leu Phe Asp Tyr Lys Ala Gln Arg Glu Asp Glu Leu
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Thr Phe Ile Lys Ser Ala Ile Ile Gln Asn Val Glu Lys Gln Glu
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Gly Gly Trp Trp Arg Gly Asp Tyr Gly Gly Lys Lys Gln Leu Trp
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Phe Pro Ser Asn Tyr Val Glu Glu Met Val Asn Pro Val Ala Leu
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Glu Pro Glu Arg Glu His Leu Asp Glu Asn Ser Pro Leu Gly Asp
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Arg Pro Glu Gly Lys Asn Asn Arg Leu Phe Val Phe Ser Ile Ser
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Met Ala Ser Val Ala His Trp Ser Leu Asp Val Ala Ala Asp Ser
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Gln Thr Ala Asp Ala Arg Leu Thr Glu Gly Lys Ile Met Glu Arg
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Arg Lys Lys Ile Ala Leu Glu Leu Ser Glu Leu Val Val Tyr Cys
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Cys Tyr Arg Asp Met Ser Ser Phe Pro Glu Thr Lys Ala Glu Lys
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Tyr Val Asn Lys Ala Lys Gly Lys Lys Phe Leu Gln Tyr Asn Arg
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Pro Ser Thr Met Arg Asp Glu Ala Phe Asp Pro Phe Asp Lys Ser
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                                     1075
                1070
Ser Leu Arg Gly Leu Glu Pro Cys Ala Ile Ser Ile Glu Val Leu
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                1085
Gly Ala Arg His Leu Pro Lys Asn Gly Arg Gly Ile Val Cys Pro
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 Gln Lys Thr Glu Phe Val Val Asp Asn Gly Leu Asn Pro Val Trp
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 Pro Ala Lys Pro Phe His Phe Gln Ile Ser Asn Pro Glu Phe Ala
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                1145
 Phe Leu Arg Phe Val Val Tyr Glu Glu Asp Met Phe Ser Asp Gln
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                1160
                                     1165
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 Gly Tyr Arg Ala Val Pro Leu Lys Asn Asn Tyr Ser Glu Asp Leu
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                1205
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Val Pro Gln Pro Arg Trp Arg Ala Ala Gly Ala Val Arg Leu Val
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Lys Val Ile Gln Thr Ala Phe Gln Arg Ala Ser Tyr Pro Asp Ile
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Thr Gly Glu Lys Ala Met Met Leu Leu Gly Gln Val Lys Tyr Gly
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Leu His Asn Ile Gln Ile Ser His Leu Ser Ile Ala Ser Ser Gln
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                  80
Val Glu Leu Val Glu Ala Lys Ser Ile Asp Val Ser Ile Gln Asn
                                                          105
                                      100
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Val Ser Val Val Phe Lys Gly Thr Leu Lys Tyr Gly Tyr Thr Thr
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                                      115
                 110
Ala Trp Trp Leu Gly Ile His Gln Ser Ile Asp Phe Glu Ile Asp
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 Ser Ala Ile Asp Leu Gln Ile Asn Thr Gln Leu Thr Cys Asp Ser
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 Gly Arg Val Arg Thr Asp Ala Pro Asp Cys Tyr Leu Ser Phe His
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 Lys Leu Leu His Leu Gln Gly Glu Arg Glu Pro Gly Trp Ile
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 Lys Gln Leu Phe Thr Asn Phe Ile Ser Phe Thr Leu Lys Leu Val
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 Leu Lys Gly Gln Ile Cys Lys Glu Ile Asn Val Ile Ser Asn Ile
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                 200
 Met Ala Asp Phe Val Gln Thr Arg Ala Ala Ser Ile Leu Ser Asp
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 Gly Asp Ile Gly Val Asp Ile Ser Leu Thr Gly Asn Pro Val Ile
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                 230
 Thr Ala Ser Tyr Leu Glu Ser His His Lys Ala Val Leu Gln Thr
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                                      250
                 245
 Trp Gly Phe Asn Thr Asn Gln Glu Ile Phe Gln Glu Val Val Gly
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                                      265
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 Gly Phe Pro Ser Gln Ala Gln Val Thr Val His Cys Leu Lys Met
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 Pro Lys Ile Ser Cys Gln Asn Lys Gly Val Val Val Asn Ser Ser
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                  290
 Val Met Val Lys Phe Leu Phe Pro Arg Pro Asp Gln Gln His Ser
                                                           315
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                  305
 Val Ala Tyr Thr Phe Glu Glu Asp Ile Val Thr Thr Val Gln Ala
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                  320
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Ser Tyr Ser Lys Lys Leu Phe Leu Ser Leu Leu Asp Phe Gln
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Ile Thr Pro Lys Thr Val Ser Asn Leu Thr Glu Ser Ser Ser Glu
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Ser Ile Gln Ser Phe Leu Gln Ser Met Ile Thr Ala Val Gly Ile
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Pro Glu Val Met Ser Arg Leu Glu Val Val Phe Thr Ala Leu Met
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Asn Ser Lys Gly Val Ser Leu Phe Asp Ile Ile Asn Pro Glu Ile
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Pro Glu Asn Ser Glu Phe Ile Leu Gln Glu Glu Pro Asn Pro His
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 Met Ser Lys Gln Asp Arg Asn Gln Arg Pro Ser Ser Met Val Ser
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 Glu Thr Ser Thr Ala Gly Thr Ala Ser Thr Leu Glu Ala Lys Pro
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                  80
Gly Pro Lys Ile Ile Lys Ser Ser Ser Lys Val His Ser Phe Gly
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                                      100
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 Lys Arg Asp Gln Ala Ile Arg Arg Asn Pro Asn Val Pro Val Val
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                 110
 Val Arg Gly Trp Leu His Lys Gln Asp Ser Ser Gly Met Arg Leu
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                                      130
                 125
 Trp Lys Arg Arg Trp Phe Val Leu Ala Asp Tyr Cys Leu Phe Tyr
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 Tyr Lys Asp Ser Arg Glu Glu Ala Val Leu Gly Ser Ile Pro Leu
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 Pro Ser Tyr Val Ile Ser Pro Val Ala Pro Glu Asp Arg Ile Ser
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 Arg Lys Tyr Ser Phe Lys Ala Val His Thr Gly Met Arg Ala Leu
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 Ile Tyr Asn Ser Ser Thr Ala Gly Ser Gln Ala Glu Gln Ser Gly
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 Met Arg Thr Tyr Tyr Phe Ser Ala Asp Thr Gln Glu Asp Met Asn
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 Ala Trp Val Arg Ala Met Asn Gln Ala Ala Gln Val Leu Ser Arg
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 Ser Ser Leu Lys Arg Asp Met Glu Lys Val Glu Arg Gln Ala Val
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 Pro Gln Ala Asn His Thr Glu Ser Cys His Glu Cys Gly Arg Val
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 Gly Pro Gly His Thr Arg Asp Cys Pro His Arg Gly His Asp Asp
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Ile Val Asn Phe Glu Arg Gln Glu Gln Glu Gly Glu Gln Tyr Arg
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Ser Gln Arg Asp Pro Leu Glu Gly Lys Arg Asp Arg Ser Lys Ala
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Arg Ser Pro Tyr Ser Pro Ala Glu Glu Asp Ala Leu Phe Met Asp
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Leu Pro Thr Gly Pro Arg Gly Gln Gln Ala Gln Pro Gln Arg Ala
                                     340
                335
Glu Lys Asn Gly Met Leu Pro Ala Ser Tyr Gly Pro Gly Glu Gln
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                                     355
                350
Asn Gly Thr Gly Gly Tyr Gln Arg Ala Phe Pro Pro Arg Thr Asn
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                                     370
Pro Glu Lys His Ser Gln Arg Lys Ser Asn Leu Ala Gln Val Glu
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                 380
His Trp Ala Arg Ala Gln Lys Gly Asp Ser Arg Ser Leu Pro Leu
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Asp Gln Thr Leu Pro Arg Gln Gly Pro Gly Gln Ser Leu Ser Phe
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Pro Glu Asn Tyr Gln Thr Leu Pro Lys Ser Thr Arg His Pro Ser
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Gly Gly Ser Ser Pro Pro Pro Arg Asn Leu Pro Ser Asp Tyr Lys
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Tyr Ala Gln Asp Arg Ala Ser His Leu Lys Met Ser Ser Glu Glu
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Arg Arg Ala His Arg Asp Gly Thr Val Trp Gln Leu Tyr Glu Trp
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Phe Leu Pro Gly Asn Thr Leu Lys Asp Phe Glu Glu Gly Cys Tyr
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 Phe Pro Cys Asn Pro Asn Lys Leu Gly Val Asn Met Pro Ser Lys
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 Ser Val His Ser Leu Lys Pro Ser Asp Ile Lys Phe Val Ala Ala
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 Ile Gly Asn Leu Glu Ile Pro Pro Asp Pro Gly Thr Gly Asp Leu
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 Glu Lys Gln Asp Trp Thr Glu Arg Pro Gln Gln Val Cys Met Gly
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Pro	Ser	Ala	Gln		Asn	Gly	Leu	Ala		Gly	Gly	Val	Asp	
Leu	Met	Gly	Val		Asp	Tyr	Leu	Gln	Gln 205	Glu	Val	Pro	Arg	Ala 210
Phe	Val	Asn	Leu		Asp	Leu	Ser	Glu		Ala	Glu	Val	Ser	
Gln	Tyr	His	Gly		Trp	Leu	Ser	Pro	Ala 235	Pro	Glu	Pro	Cys	Asn 240
Cys	Ser	Glu	Glu		Thr	Arg	Leu	Ala		Val	Val	Met	Gln	
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Glu	Thr	Thr	Pro	Ser 290	Leu	His	Ser	Glu	Asp 295	Pro	Arg	Leu	Gln	Asp 300
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Thr	Val	Thr	Thr	Leu 440		Asn	Ile	Leu	Arg	Glu	Phe	Asn	Pro	Ser 450
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Ala	Phe	Leu	Asn	Gln 470	Ala	Val	Ala	Gly	Gly 475	Arg	Ala	Glu	. Asp	Leu 480
Pro	Val	Gln	Ala	Arg 485		Leu	Val	Asp	Leu 490		Lys	Asn	Asp	Thr 495
Arg	Ile	His	Phe		Glu	Asp	Trp	Lys	11e 505		Thr	Leu	Phe	Ile 510
Gly	Gly	Asn	n Asp		ı Cys	Asp	Phe	Cys		Asp	Leu	ı Val	His	Tyr 525
Ser	Pro	Glr	n Asn		e Thr	Asp	Asn	Ile	Gly 535		. Ala	Let	Asp	1le 540
				val 545	Pro				Val 550	. Asr				Val 555
				Asr 560	ı Lev				Ty: 565	Glr				Val 570
Туг	Cys	Pro	Arg	y Met 575	: Ile	e Leu	a Arg	ß Ser		ı Cys	s Pro	Cys	val	. Leu 585

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Val Val Ala Ala Leu Gly Asp Ser Leu Thr Thr Ala Val Gly Ala
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Leu Pro Asn Ile Leu Lys Lys Phe Asn Pro Tyr Leu Leu Gly Phe
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Ile Ser Ser Gly Ile Leu Thr Leu Val Gly Met Gly Leu Ala Pro
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Phe Thr Glu Gly Gly Ser Leu Val Leu Leu Glu Pro Gly Met Glu
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                                                          195
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Leu Gly Ile Thr Ala Ala Leu Thr Gly Ile Thr Ser Ser Thr Ile
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                                     205
Asp Tyr Gly Lys Lys Trp Trp Thr Gln Ala Gln Ala His Asp Leu
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Val Ile Lys Ser Leu Asp Lys Leu Lys Glu Val Lys Glu Phe Leu
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                                     235
Gly Glu Asn Ile Ser Asn Phe Leu Ser Leu Ala Gly Asn Thr Tyr
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Gln Leu Thr Arg Gly Ile Gly Lys Asp Ile Arg Ala Leu Arg Arg
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                                     265
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Ala Arg Ala Asn Leu Gln Ser Val Pro His Ala Ser Ala Ser Arg
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Pro Arg Val Thr Glu Pro Ile Ser Ala Glu Ser Gly Glu Gln Val
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Glu Arg Val Asn Glu Pro Ser Ile Leu Glu Met Ser Arg Gly Val
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Lys Leu Thr Asp Val Ala Pro Val Ser Phe Phe Leu Val Leu Asp
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Val Val Tyr Leu Val Tyr Glu Ser Lys His Leu His Glu Gly Ala
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Lys Ser Glu Thr Ala Glu Glu Leu Lys Lys Val Ala Gln Glu Leu
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Glu Glu Lys Leu Asn Ile Leu Asn Asn Asn Tyr Lys Ile Leu Gln
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Ala Asp Gln Glu Leu
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Pro Gly Asn Pro Gly His Asn Val Leu Pro Gly Arg Asp Gly Arg
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                                      40
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Asp Gly Ala Lys Gly Asp Lys Gly Asp Ala Gly Glu Pro Gly Cys
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Pro Gly Ser Pro Gly Lys Asp Gly Thr Ser Gly Glu Lys Gly Glu
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Arg Gly Ala Asp Gly Lys Val Glu Ala Lys Gly Ile Lys Gly Met
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Phe Arg Cys Leu Trp Ser Lys Thr Glu
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Leu Arg Leu Thr Gly Ser Ser Ala Gln Glu Ala Ala Ser Gly Val
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                                      40
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Ala Leu Gly Glu Ala Pro Asp His Ser Tyr Glu Ser Leu Arg Val
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                                      55
Thr Ser Ala Gln Lys His Val Leu His Val Gln Leu Asn Arg Pro
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                                      70
Asn Lys Arg Asn Ala Met Asn Lys Val Phe Trp Arg Glu Met Val
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                                      85
Glu Cys Phe Asn Lys Ile Ser Arg Asp Ala Asp Cys Arg Ala Val
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Val Ile Ser Gly Ala Gly Lys Met Phe Thr Ala Gly Ile Asp Leu
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                                     115
Met Asp Met Ala Ser Asp Ile Leu Gln Pro Lys Gly Asp Asp Val
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                                     130
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Ala Arg Ile Ser Trp Tyr Leu Arg Asp Ile Ile Thr Arg Tyr Gln
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Glu Thr Phe Asn Val Ile Glu Arg Cys Pro Lys Pro Val Ile Ala
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Ala Val His Gly Gly Cys Ile Gly Gly Gly Val Asp Leu Val Thr
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Ala Cys Asp Ile Arg Tyr Cys Ala Gln Asp Ala Phe Phe Gln Val
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                                     190
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Lys Glu Val Asp Val Gly Leu Ala Ala Asp Val Gly Thr Leu Gln
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Arg Leu Pro Lys Val Ile Gly Asn Gln Ser Arg Val Phe Pro Asp
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                                     220
Lys Glu Val Met Leu Asp Ala Ala Leu Ala Leu Ala Glu Ile
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Ser Ser Lys Ser Pro Val Ala Val Gln Ser Thr Lys Val Asn Leu
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Leu Tyr Ser Arg Asp His Ser Val Ala Glu Ser Leu Asn Tyr Val
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                                     265
Ala Ser Trp Asn Met Ser Met Leu Gln Thr Gln Asp Leu Val Lys
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Ser Val Gln Ala Thr Thr Glu Asn Lys Glu Leu Lys Thr Val Thr
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Phe Ser Lys Leu
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Gly Ser Val Ser Thr Ser Ser Asn Ser Ser Lys Gly Gln Leu Glu
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Asp Ser Asn Met Gly Thr Ala Ser Ser Ile Glu Tyr Ser Thr Arg
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Pro Arg Asp Thr Glu Glu Gln Asn Pro Glu Thr Val Asn Trp Glu
                                      70
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Asp Arg Pro Ser Thr Pro Thr Ile Leu Gly Tyr Glu Val Met Glu
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                                      85
Glu Arg Ala Lys Phe Thr Val Tyr Lys Ile Leu Val Lys Lys Thr
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 Pro Glu Glu Ser Trp Val Val Phe Arg Arg Tyr Thr Asp Phe Ser
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                                     115
 Arg Leu Asn Asp Lys Leu Lys Glu Met Phe Pro Gly Phe Arg Leu
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                                                          135
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 Ala Leu Pro Pro Lys Arg Trp Phe Lys Asp Asn Tyr Asn Ala Asp
                                      145
                 140
 Phe Leu Glu Asp Arg Gln Leu Gly Leu Gln Ala Phe Leu Gln Asn
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Asp Ser Asn Met Gly Asn Phe Lys Gln Thr Ser Val Pro Asp Gln
                                      55
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Met Asp Asn Thr Ser Ser Val Cys Ser Ser Pro Leu Ile Arg Thr
                                      70
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Lys Phe Thr Gly Thr Ala Ser Ser Ile Glu Tyr Ser Thr Arg Pro
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Arg Asp Thr Glu Glu Gln Asn Pro Glu Thr Val Asn Trp Glu Asp
                                     100
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Arg Pro Ser Thr Pro Thr Ile Leu Gly Tyr Glu Val Met Glu Glu
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Arg Ala Lys Phe Thr Val Tyr Lys Ile Leu Val Lys Lys Thr Pro
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Glu Glu Ser Trp Val Val Phe Arg Arg Tyr Thr Asp Phe Ser Arg
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Leu Asn Asp Lys Leu Lys Glu Met Phe Pro Gly Phe Arg Leu Ala
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Leu Pro Pro Lys Arg Trp Phe Lys Asp Asn Tyr Asn Ala Asp Phe
                 170
                                      175
Leu Glu Asp Arg Gln Leu Gly Leu Gln Ala Phe Leu Gln Asn Leu
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Val Ala His Lys Asp Ile Ala Asn Trp His Ser Val Lys Leu
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 Pro Glu Thr Asn Met Asn Val Ser Glu Ile Ile Ser Tyr Trp Gly
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 Phe Pro Ser Glu Glu Tyr Leu Val Glu Thr Glu Asp Gly Tyr Ile
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 Leu Cys Leu Asn Arg Ile Pro His Gly Arg Lys Asn His Ser Asp
                                       70
 Lys Gly Glu Gly Ala Val Pro Trp Asn Met Lys Lys Val Ser Met
                                       85
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 Ser Leu Asp Met Leu Pro Gly Pro Lys Pro Val Val Phe Leu Gln
                                      100
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 His Gly Leu Leu Ala Asp Ser Ser Asn Trp Val Thr Asn Leu Ala
                                      115
                  110
 Asn Ser Ser Leu Gly Phe Ile Leu Ala Asp Ala Gly Phe Asp Val
                                      130
                  125
 Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Lys His Lys
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Thr Leu Ser Val Ser Gln Asp Glu Phe Trp Ala Phe Ser Tyr Asp
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Glu Met Ala Lys Tyr Asp Leu Pro Ala Ser Ile Asn Phe Ile Leu
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Asn Lys Thr Gly Gln Glu Gln Val Tyr Tyr Val Gly His Ser Gln
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                185
Gly Thr Thr Ile Gly Phe Ile Ala Phe Ser Gln Ile Pro Glu Leu
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                                     205
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Ala Lys Arg Ile Lys Met Phe Phe Ala Leu Gly Pro Val Ala Ser
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Val Ala Phe Cys Thr Ser Pro Met Ala Lys Leu Gly Arg Leu Pro
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Asp His Leu Ile Lys Asp Leu Phe Gly Asp Lys Glu Phe Leu Pro
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Gln Ser Ala Phe Leu Lys Trp Leu Gly Thr His Val Cys Thr His
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                260
Val Ile Leu Lys Glu Leu Cys Gly Asn Leu Cys Phe Leu Leu Cys
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Gly Phe Asn Glu Arg Asn Leu Asn Met Ser Arg Val Asp Val Tyr
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Thr Thr His Ser Pro Ala Gly Thr Ser Val Gln Asn Met Leu His
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Trp Ser Gln Ala Val Lys Phe Gln Lys Phe Gln Ala Phe Asp Trp
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Gly Ser Ser Ala Lys Asn Tyr Phe His Tyr Asn Gln Ser Tyr Pro
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Pro Thr Tyr Asn Val Lys Asp Met Leu Val Pro Thr Ala Val Trp
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Ser Gly Gly His Asp Trp Leu Ala Asp Val Tyr Asp Val Asn Ile
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Leu Leu Thr Gln Ile Thr Asn Leu Val Phe His Glu Ser Ile Pro
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 Glu Trp Glu His Leu Asp Phe Ile Trp Gly Leu Asp Ala Pro Trp
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 Thr Trp Leu Ala Pro Asn Leu Ile Thr Phe Ser Gly Phe Leu Leu
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 Val Val Phe Asn Phe Leu Leu Met Ala Tyr Phe Asp Pro Asp Phe
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                                        70
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 Tyr Ala Ser Ala Pro Gly His Lys His Val Pro Asp Trp Val Trp
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 Ile Val Val Gly Ile Leu Asn Phe Val Ala Tyr Thr Leu Asp Gly
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 Val Asp Gly Lys Gln Ala Arg Arg Thr Asn Ser Ser Thr Pro Leu
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Gly Glu Leu Phe Asp His Gly Leu Asp Ser Trp Ser Cys Val Tyr
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Phe Val Val Thr Val Tyr Ser Ile Phe Gly Arg Gly Ser Thr Gly
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                                                         150
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Val Ser Val Phe Val Leu Tyr Leu Leu Leu Trp Val Val Leu Phe
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Ser Phe Ile Leu Ser His Trp Gly Lys Tyr Asn Thr Gly Ile Leu
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Phe Leu Pro Trp Gly Tyr Asp Ile Ser Gln Val Thr Ile Ser Phe
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                                     190
Val Tyr Ile Val Thr Ala Val Val Gly Val Glu Ala Trp Tyr Glu
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                                     205
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Pro Phe Leu Phe Asn Phe Leu Tyr Arg Asp Leu Phe Thr Ala Met
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Ile Ile Gly Cys Ala Leu Cys Val Thr Leu Pro Met Ser Leu Leu
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Asn Phe Phe Arg
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 Ile Arg Pro Asp Ile Lys Asp Asp Ile Tyr Asp Pro Thr Tyr Lys
                                       55
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 Asp Lys Glu Gly Pro Ser Pro Lys Val Glu Tyr Val Trp Arg Asn
                                       70
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 Ile Ile Leu Met Ser Leu Leu His Leu Gly Ala Leu Tyr Gly Ile
                                       85
                  80
 Thr Leu Ile Pro Thr Cys Lys Phe Tyr Thr Trp Leu Trp Gly Val
                                      100
                  95
 Phe Tyr Tyr Phe Val Ser Ala Leu Gly Ile Thr Ala Gly Ala His
                                      115
                 110
 Arg Leu Trp Ser His Arg Ser Tyr Lys Ala Arg Leu Pro Leu Arg
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                                      130
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 Leu Phe Leu Ile Ile Ala Asn Thr Met Ala Phe Gln Ser Pro Gln
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 Val Pro Val Gln Ser Leu Ser Pro
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